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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,760

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28481 7590 02/11/2009  
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EXAMINER

SZEWCZYK, CYNTHIA

ART UNIT

PAPER NUMBER

1791

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,760	<b>Applicant(s)</b> BOGDAHN ET AL.	
	<b>Examiner</b> CYNTHIA SZEWCZYK	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-11,18-21 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-11,18-21 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 5-11, 18, 20, 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over BOGDAHN et al. (US 6,098,428) in view of YAMAMURA et al. (US 6,742,363 B1).

BOGDAHN et al. teaches a process for drawing glass fiber using prediction of future geometric parameters. BOGDAHN discloses that the method comprises continuously feeding a glass cylinder to a heating zone (col. 2, lines 11-13) having a vertically oriented heating tube (figure 1); zonewise softening the glass cylinder (col. 2, lines 13-14); and drawing a glass strand from the softened glass cylinder (col. 1, lines 6-7). Although BOGDAHN does not explicitly teach cutting the glass strand to size it would have been obvious to one of ordinary skill in the art to cut the glass strand after drawing in order to produce a finished product to specification. BOGDAHN teaches an adjusting means to correct any deviation in the wall thickness (col. 7, lines 27-41). BOGDAHN discloses that the adjusting operation comprises the steps of measuring an actual state of a radial circular or annular dimension of the test glass strand (col. 5, lines 32-34), determining a deviation between the actual state and a desired state (col. 5, lines 35-36), and calculating a corrected xy-position (col. 5, lines 39-41). BOGDAHN is silent to repositioning the glass tube along the longitudinal axis.

YAMAMURA et al. teaches a method and apparatus for straightening a glass rod. YAMAMURA et al. discloses that a glass cylinder is fed into the heating zone (col. 2, lines 37-38) (continuous feeding). Passing the glass body through the furnace would cause zonewise heating. YAMAMURA et al. discloses that the glass body is then passed through a drawing apparatus (col. 6, lines 17-18). YAMAMURA et al. discloses that the apparatus contains a sensing apparatus (col. 9, lines 60-61) capable of measuring an actual state, means to determine a deviation (col. 10, lines 6-8), means to calculate a corrected position (col. 10, lines 9-11) and a position control unit to reposition the glass body by controlling the rotation speed of the roller (col. 10, lines 13-16). It would have been obvious to one of ordinary skill in the art to correct the longitudinal axis in BOGDAHN by the adjustment provided by YAMAMURA because YAMAMURA discloses that if uncorrected, bending may occur (col. 10, lines 57-59).

Regarding claim 2, BOGDAHN et al. teaches that measurements of outside diameter and wall thickness are made optical instruments, which obviously would be able to produce optical images, or video cameras (col. 9, lines 1-6).

Regarding claim 5, YAMAMURA et al. discloses that the preferred outer diameter is 30-80 mm, whereas BOGDAHN is silent as to the outer diameter but states that it is a variable (col. 5, lines 21-23).

Regarding claim 6, YAMAMURA et al. discloses that rod is rotated (col. 9, lines 24-25), which would result in distribution measurements being taken about the circumference of the glass.

Art Unit: 1791

Regarding claim 7, it would have been obvious to one of ordinary skill in the art that if numerous pieces of the glass strand were run through the apparatus, measurements would be taken on all of the pieces.

Regarding claim 8, YAMAMURA et al. discloses that the position correction unit determines a correction factor (col. 10, lines 9-10). It would have been obvious that one of ordinary skill in the art could achieve the claimed correction factor with YAMAMURA et al. due to the amount of deviation measured.

Regarding claim 9, BOGDAHN et al. discloses that it is most effective to have multiple measuring devices (col. 9, lines 7-9). BOGDAHN et al. discloses that multiple measuring sites ensure dimensional accuracy by determining whether the glass is still undergoing deformation (col. 9, lines 11-13).

Regarding claim 10, YAMAMURA et al. discloses that the repositioning of the glass cylinder to a corrected position is performed by a position control unit (col. 10, line 13) (controlled transportation).

Regarding claim 11, it would have been obvious to one of ordinary skill in the art that any material used during testing of the apparatus would be considered test material.

Regarding claim 18, BOGDAHN et al. discloses that the glass may be quartz (col. 9, line 67).

Regarding claim 20, see the discussion of claim 1 above. YAMAMURA et al. discloses that the position control unit reduces the deviation to zero (col. 10,

Art Unit: 1791

lines 9-12) which indicates that the position control unit considers any deviation to be a value indicative of lopsidedness.

Regarding claim 21, it would have been obvious to one of ordinary skill in the art to repeat the position control because YAMAMURA et al. discloses that the shapes of the elongation rollers changes with time which may result in deformation of the glass (col. 10, lines 27-35).

Regarding claim 24, see the discussion of claim 2 above.

3. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over BOGDAHN et al. (US 6,098,428) in view of YAMAMURA et al. (US 6,742,363 B1) as applied to claims 1, 2, 5-11, 18, 20, 21, and 24 above, and further in view of YOKOKAWA et al. (US 5,785,729).

BOGDAHN as modified by YAMAMURA discloses a process and apparatus for straightening a glass rod. Modified BOGDAHN fails to teach the diameter range of instant claim 19.

YOKOKAWA et al. teaches that it is well known that conventional quartz tubes for optical fibers have an outer diameter of 15-20 mm (col. 2, lines 25-27), which would overlap with the range of instant claim 19. It would have been obvious that the tube of modified BOGDAHN would be capable of the diameter range disclosed by YOKOKAWA et al. because modified BOGDAHN teaches a quartz tube for optical fibers and states that the outer diameter is a variable in the process (col. 5, lines 21-23).

***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 2, 5-11, 18-21, and 24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Thursday 7:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1791

CS

/ Carlos Lopez/

Primary Examiner, Art Unit 1791